

10/509712

EXPRESS MAIL CERTIFICATION UNDER 37 CFR 1.10

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Date of deposit 9/30/04

DT09 Rec'd PCT/PTO 30 SEP 2004

I hereby certify that the paper(s) identified above, and any document(s) referred to as attached hereto, is being deposited with the United States Postal Service on the date indicated in an envelope as "Express Mail Post Office to Addressee" and is addressed: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia, 22313-1450.

Sean F. Mellino
Sean F. Mellino

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Detlef P. Müller-Schulte

Serial No. :

Filing Date : Herewith

Examiner :

Group Art Unit:

Title : Luminescent, Spherical, Non-Autofluorescent Silica Gel
Particles With Changeable Emission Intensities and
Emission Frequencies (as amended)

Attorney File : RO0909US (#90568)

**INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 CFR 1.97**

Mail Stop PCT
Commissioner for Patents
P O Box 1450
Alexandria, Virginia, 22313-1450

Dear Sir,

Under the provision of 37 C.F.R. 1.56, 1.97 and 1.98, Applicant would like to call the Examiner's attention to the references listed on the attached Form PTO-1449. Three of the foreign patent references are enclosed. The Brazilian reference and the publications will be provided shortly.

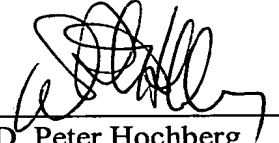
In accordance with 37 C.F.R. 1.97(b)(1), and as this Information Disclosure Statement is being filed with the application, the Statement is submitted before the issuance of a first Official Action on this case.

In accordance with 37 C.F.R. 1.97(g) and 37C.F.R.1.97(h), filing of this Information disclosure Statement shall not be construed to be an admission that the

information cited in the statement is, or is considered to be, material to patentability as defined in 34 C.F.R. 1.56(b).

The Examiner is requested to make the attached references of record and to consider these references along with such other references deemed pertinent as a result of the Examiner's own independent search and examination.

Respectfully submitted,


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FORM PTO-1449

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U S PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name
_____	3,853,987	12/10/74	Dreyer
_____	3,996,345	12/7/76	Ullman, et al.
_____	3,998,943	12/21/76	Ullman
_____	4,035,316	7/12/77	Yen, et al.

_____	4,105,598	8/8/78	Yen, et al.
_____	4,108,972	8/22/78	Dreyer
_____	4,174,384	11/13/79	Ullman, et al.
_____	4,199,559	4/22/80	Ullman, et al.
_____	4,224,198	9/23/80	Rembaum, et al.
_____	4,261,968	4/14/81	Ullman, et al.
_____	4,326,008	4/20/82	Rembaum
_____	4,666,862	5/19/87	Chan
_____	4,777,123	10/11/88	Yamada, et al.
_____	5,043,265	8/27/91	Tawke, et al.
_____	5,066,580	11/19/91	Lee
_____	5,132,242	7/21/92	Cheung
_____	5,251,018	10/5/93	Jang, et al.
_____	5,262,357	11/16/93	Alivisatos, et al.
_____	5,293,050	3/8/94	Chapple-Sokol, et al.
_____	5,319,209	6/7/94	Miyakawa, et al.
_____	5,324,633	6/28/94	Fodor, et al.
_____	5,354,707	10/11/94	Chapple-Sokol, et al.
_____	5,505,928	4/9/96	Alivisatos, et al.
_____	5,525,377	6/11/96	Gallagher, et al.
_____	5,537,000	7/16/96	Alivisatos, et al.
_____	5,541,948	7/30/96	Krupkie, et al.
_____	5,585,640	12/17/96	Huston, et al.
_____	5,674,698	10/7/97	Zarling, et al.

_____	5,698,397	12/16/97	Zarling, et al.
_____	5,751,018	5/12/98	Alivisatos, et al.
_____	5,770,299	6/23/98	Dannenhauer, et al.
_____	5,789,162	8/4/98	Dower, et al.
_____	5,906,670	5/25/99	Dobson, et al.
_____	5,985,353	11/16/99	Lawton, et al.
_____	5,990,479	11/23/99	Weiss, et al.
_____	6,004,530	12/21/99	Sagner, et al.
_____	6,114,038	9/5/2000	Rifqi
_____	6,207,229	3/27/2001	Bawendi, et al.
_____	6,207,397	3/27/2001	Lynch, et al.
_____	6,326,144	12/4/2001	Bawendi, et al.

Foreign Patent Documents

<u>Examiner Initial</u>	<u>Document Number</u>	<u>Date</u>	<u>Country</u>	<u>Translation (Yes/No)</u>
_____	WO 99/01766	1/14/99	WO	No
_____	WO 02/09125	1/31/2002	WO	No
_____	BR 1439031 **			
_____	DE 24 26 919 A	1/2/76	DE	No

Other Prior Art (Inc. Author, Title, Date, Pertinent Pages, Etc)

<u>Examiner Initial</u>	<u>Document</u>
_____	Oi, et al., <u>J. Cell. Biol.</u> , Vol. 93: 891 (1982) **
_____	Kaplan, et al., <u>Biochimica et Biophysica Acta</u> , Vol. 728: 112 (1983) **

DT09 Rec'd PCT/PTO 30 SEP 2004

Lianos, et al., Chem. Phys. Lett., Vol. 125: 299 (1986) **

Fornusek & Vetvicka, "Polymeric Microspheres as Diagnostic Tools for Cell Surface Marker Tracing," CRC Critical Reviews in Therapeutic Drug Carrier Systems, Vol. 2: 137-174 (1986) **

Laane, et al., "Biocatalysis in Organic Media," Elsevier, Amsterdam, page 65 (1987) **

Steigerwald, et al., J. Am. Chem. Soc., Vol. 110: 3046-3050 (1988) **

Matson & Little, J. Chromatogr., Vol. 458: 67 (1988) **

Kortan, et al., J. Am. Chem. Soc., Vol. 112: 1327 (1990) **

Shinkai, et al., Biocatalysis, Vol. 5: 61 (1991) **

Murray, et al., J. Am. Chem. Soc., Vol. 115: 8706 (1993) **

Colvin, et al., Nature, Vol. 370: 354 (1994) **

Chang, et al., J. Am. Chem. Soc., Vol. 116: 6739 (1994) **

Kondo, et al., Appl. Microbiol. Biotechn., Vol. 41: 99 (1994) **

Hines, et al., J. Phys. Chem. B., Vol. 100: 468 (1996) **

Danek, et al., Chem. Mater., Vol. 8: 173 (1996) **

Dabbousi, et al., J. Phys. Chem. B., Vol. 101: 9463 (1997) **

Vansant, et al., "Characterization and Chemical Modification of the Silica Surface," Elsevier, Amsterdam (1997) **

"Scientific and Clinical Applications of Magnetic Carriers," Plenum Press, New York (1997) **

Chan, et al., Science, Vol. 281: 2016 (1998) **

Sooklal, et al., Adv. Mater., Vol. 10: 1083 (1998) **

Correa-Duarte, et al., Chem. Phys. Letters, Vol. 286: 497 (1998) **

Shriver-Lake, "Immobilized Biomolecules in Analysis," Oxford University Press (1998) **

"Bioanalytik," Spektrum Verlag, Heidelberg (1998) **

- ____ Hirai, et al., J. Phys. Chem. B., Vol. 103: 4228 (1999) **
- ____ Mitchell, et al., J. Am. Chem. Soc., Vol. 121: 8122 (1999) **
- ____ Lakowicz, et al., J. Phys. Chem., Vol. 103: 7613 (1999) **
- ____ Mattoussi, et al., J. Am. Chem. Soc., Vol. 122: 12142 (2000) **
- ____ Lemon, et al., J. Am. Chem. Soc., Vol. 122: 12886 (2000) **
- ____ Lee, et al., Adv. Matter, Vol. 12: 1102 (2000) **
- ____ Gerion, et al., J. Phys. Chem., Vol. 105: 8861 (2001) **
- ____ Han, et al., Nature Biotech, Vol. 19: 631 (2001) **
- ____ Corstjens, et al., Clin. Chem., Vol. 47: 1885 (2001) **
- ____ Hampl, et al., Anal. Biochem, Vol. 288: 176 (2001) **
- ____ Niedbala, et al., Anal. Biochem., Vol. 293: 22 (2001) **
- ____ Zhao, et al., Chem. Mater., Vol. 14: 1418 (2002) **
- ____ Chan, et al., " Luminescent Quantum Dots for Multiplexed Biological Detection and Imaging," Current Opinion in Biotechnology, Vol. 13, No. 1, pages 40-46 (Feb. 2002) **

Examiner

Date Considered:

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant

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